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DELIVERY SYSTEM, SERVER AND ACCOMMODATING DEVICE OF SAME, PORTABLE
TERMINAL SYSTEM AND PROGRAM

[Haishin shisutemu, sono saba oyobi shuyo sochi to, keitai tanmatsu shisutemu to, puroguramu]

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Claims

1. A delivery system characterized by the following facts: the delivery system has a portable terminal that has a display means for displaying the image, an means for requesting download of video data, and an image control means that displays the image on said display means, an accommodating device formed in a [fantasy] character shape and allows viewing of the image displayed on the display means of said portable terminal while said portable terminal is accommodated, and a contents server having a storage means for storing the video data of the image corresponding to a portion of the character of said accommodating device, and an image delivery means that responds to the request for download of the video data from the portable terminal and has the video data delivered to said portable terminal;

while said portable terminal is accommodated in said accommodating device, the image of the downloaded video data is displayed on the display unit of said portable terminal, so that the character of said accommodating device and the image of a portion of the character displayed on the display unit of said portable terminal are integrated to form a single character.

2. The delivery system described in Claim 1 characterized by the following facts: said contents server also has a storage means for storing the melody data of the melody related to the character of on said accommodating device, and a melody data delivery means that responds to the request for download of the melody data from the portable terminal to deliver the melody data to said portable terminal;

said portable terminal also has an output means for output of the melody, a means for requesting download of the melody data, and a melody control means that outputs the melody to said output means on the basis of the downloaded melody data.

3. The delivery system described in Claim 1 or 2 characterized by the following facts: said contents server has

* [Numbers in right margin indicate pagination of the original text.]

a storage means for storing the video data of plural images corresponding to a portion of the character of the accommodating device, and the melody data of the melody corresponding to each of said images,

and an image delivery means that responds to each video data from the portable terminal and the request for download of the melody data corresponding to said image data, and delivers the video data and the melody data to said portable terminal;

said portable terminal has

a means that requests the server for download of plural video data and the melody data corresponding to the plural video data,

a storage means that accommodates said downloaded plural video data and the melody data corresponding to the information indicating the communication state of the portable terminal,

and a means that judges the communication state of the portable terminal, and has the video data of the image corresponding to it read from said storage means and displayed on the display means, and at the same time, which has the melody data corresponding to the display image read from said storage means and has the melody output to said output means.

4. The delivery system described in Claim 3 characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, the call reception state and the e-mail reception state, and the video data and melody data stored in the server correspond to said call reception standby state, call reception state and e-mail reception state.

5. A portable terminal system characterized by the following facts: the portable terminal system has a portable terminal and an accommodating device for accommodating the portable terminal;

said accommodating device is formed as a character and it allows viewing of the image displayed on said portable terminal while said portable terminal is accommodated;

said portable terminal has

a display means for displaying the image,

a storage means that stores the video data of the image corresponding to a portion of the character of said accommodating device,

and an image control means that displays the image on said display means on the basis of the video data stored in said storage means.

6. The portable terminal system described in Claim 5 characterized by the fact that said portable terminal also has a storage means for storing the melody data of the melody corresponding to the character of said accommodating device,

an output means for outputting the melody,

and a melody control means that outputs the melody to said output means on the basis of the melody data stored in said storage means.

7. The portable terminal system described in Claim 5 or 6 characterized by the fact that said portable terminal has

a storage means that stores the video data of plural images corresponding to a portion of the character of the accommodating device and the melody data of the melody corresponding to said images corresponding to the communication state,

and a means that judges the communication state and has the video data of the images corresponding to it read from said storage means and displayed on the display means, and at the same time, which has the melody data corresponding to the display image read from said storage means and has the melody output to said output means.

8. The portable terminal system described in Claim 7 characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, call reception

state and e-mail reception state, and the video data and melody data stored in said storage means correspond to said call reception standby state, call reception state and e-mail reception state.

9. The delivery system or portable terminal system described in any of Claims 1-8 characterized by the following facts: said accommodating device has

a first cover formed as the back surface of a character, and a second cover that at least has an opening portion or a transparent portion formed as the front side of said character and allows viewing of the image displayed on the display unit of said portable terminal;

and the portable terminal having said first cover and said second cover fit on it is accommodated.

10. The delivery system or portable terminal system described in Claim 9 characterized by the fact that said second cover has a hole required for the operation of the portable terminal formed on it. /3

11. The delivery system or portable terminal system described in Claim 10 characterized by the fact that said first cover and said second cover are formed from a transparent material, and the structure is such that coating can be applied from the back side of said covers.

12. The delivery system or portable terminal system described in Claim 11 characterized by the fact that mounds [sic] for dividing the coating are formed on the back side of said first cover or said second cover.

13. A delivery system characterized by the following facts: the delivery system has a portable terminal having a case formed as a character, a display means for displaying the image, a means requesting download of the video data, and an image control means that displays the image on said display means on the basis of the downloaded video data,

and a contents server that has a storage means for storing the video data of the image corresponding to a portion of the character formed as the case of said portable terminal and an image delivery means

that responds to the request of download of the video data from the portable terminal to deliver the video data to said portable terminal;

by displaying the image of the downloaded video data on the display unit of said portable terminal, the character formed on the case of said portable terminal and the image of a portion of the character displayed on the display unit of said portable terminal are integrated to form a single character.

14. The delivery system described in Claim 13 characterized by the following facts: said contents server also has a storage means for storing the melody data of the melody related to the character formed on the case of said portable terminal, and a melody data delivery means that responds to the request for download of the melody data from the portable terminal to deliver the melody data to said portable terminal;

and said portable terminal also has an output means that outputs the melody, a means requesting download of the melody data, and a melody control means that outputs the melody to said output means on the basis of the downloaded melody data.

15. A portable terminal characterized by the fact that the portable terminal has
a case formed as a character,
a storage means for storing the video data of the image corresponding to a part of said character,
and an image control means for displaying the image on said display means on the basis of the video data stored in said storage means.

16. The portable terminal described in Claim 15 characterized by the fact that said portable terminal also has

a storage means for storing the melody data of the melody related to said character,
an output means for outputting the melody,

and a melody control means for outputting the melody to said output means on the basis of the melody data stored in said storage means.

17. The portable terminal described in Claim 15 or 16 characterized by the fact that said portable terminal has

a storage means that stores the video data of plural images corresponding to a portion of the character and the melody data of the melody corresponding to said images corresponding to the information indicating the communication state,

and a means that judges the communication state of the portable terminal, has the video data of the image corresponding to it read from said storage means and displayed on the display means, and at the same time, has the melody data corresponding to the image in display read from the storage means and has the melody output to said output means.

18. The portable terminal described in Claim 17 characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, call reception state and e-mail reception state, and the video data and melody data stored in the storage means correspond to said call reception standby state, call reception state and e-mail reception state.

19. A server characterized by the fact that the server is for delivering images to a portable terminal accommodated in an accommodating device formed as a character, and it has

a storage means that stores the video data of the image corresponding to a portion of the character formed on the accommodating device,

and an image delivery means that responds to the request for download of the video data from the portable terminal and has the video data delivered to said portable terminal.

20. The server described in Claim 19 characterized by the fact that said server also has

a storage means that stores the melody data of the melody related to the character formed on the accommodating device,

and a melody data delivery means that delivers the melody data to said portable terminal when there is a request for download of the melody data from the portable terminal.

21. The server described in Claim 19 or 20 characterized by the fact that said server also has

a storage means that stores the video data of plural images corresponding to a portion of the character formed on the accommodating device and melody data of the melody corresponding to each said image corresponding to communication state of the portable terminal,

and an image delivery means that responds to the request for download of the video data from the portable terminal and the melody data corresponding to said video data to have the video data and melody data delivered to said portable terminal.

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22. A server characterized by the fact that the server for delivery of images to a portable terminal having character shape has

a storage means that stores the video data of image corresponding to a portion of the character formed on said portable terminal,

and an image delivery means that responds to the request for download of video data from the portable terminal and delivers video data to said portable terminal.

23. The server described in Claim 22 characterized by the fact that said server also has

a storage means that stores the melody data of the melody related to the character formed on said portable terminal,

and a melody delivery means that delivers the melody data to said portable terminal when there is a request for download of melody data from the portable terminal.

24. A program characterized by the following facts: the program is for a server that delivers image to a portable terminal accommodated in an accommodating device formed as a character; said program causes said server to function as

a storage means that stores the video data of image corresponding to a portion of the character formed on an accommodating device,

and an image delivery means that responds to the request for download of video data from the portable terminal to deliver the video data to said portable terminal.

25. The program described in Claim 24 characterized by the fact that said program also has said server function

as a storage means that stores the melody data of the melody related to the character formed on said accommodating device,

and a melody data delivery means that delivers melody data to said portable terminal when there is a request for download of melody data from the portable terminal.

26. The program described in Claim 24 or 25 characterized by the fact that said program also has the server function as

a storage means that stores the video data of plural images corresponding to a portion of the character formed on the accommodating device corresponding to the communication state of the portable terminal,

and an image delivery means that responds to the request for download of the various video data from the portable terminal and the melody data corresponding to them, and delivers the video data and melody data to said portable terminal.

27. A program characterized by the fact that the program is for a server for delivery of images to a portable terminal formed as a character, and the program has said server function as

a storage means that stores the video data of the image corresponding to a portion of the character function on said portable terminal,

and an image delivery means that responds to the request for download of the video data from the portable terminal and delivers the video data to said portable terminal.

28. The program described in Claim 27 characterized by the fact that said program also has [the server] function as

a storage means that stores the melody data of the melody related to the character formed on said portable terminal,

and a melody data delivery means that delivers the melody data to said portable terminal when there is a request for download of the melody data from the portable terminal.

29. The program described in Claim 27 or 28 characterized by the fact that said program also has the server function as

a storage means for storing the video data of plural images corresponding to a portion of the character formed on the accommodating device, and the melody data of the melody corresponding to each of said images,

and an image delivery means that responds to each video data from the portable terminal and the request for download of the melody data corresponding to said image data, and delivers the video data and the melody data to said portable terminal.

30. A program characterized by the fact that the program is for a portable terminal having a character shape or a portable terminal accommodated in an accommodating device formed as a character, and said program has said portable terminal function as

a storage means that accommodates the video data of the plural images corresponding to a portion of the character corresponding to the communication state of the portable terminal and the melody data of

the melody corresponding to each of said images corresponding to the information indicating the communication state,

a display means that outputs the melody,

and a means that judges the communication state, and has the video data of the image corresponding to it read from said storage means and displayed on the display means, and at the same time, which has the melody data corresponding to the display image read from said storage means and has the melody output to said output means.

31. The program described in Claim 30 characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, call reception state and e-mail reception state, and the video data and melody data stored in the storage means correspond to said call reception standby state, call reception state and e-mail reception state.

32. An accommodating device characterized by the following facts: the accommodating device accommodates a portable terminal that has the image of a portion of a prescribed character downloaded from the contents server and displayed, and it at least has an opening portion or a transparent portion that can be visually recognized for the display unit of the portable terminal.

33. The accommodating device described in Claim 33 characterized by the following facts: said accommodating device has

a first cover formed as the back surface of a character, and a second cover that at least has an opening portion or a transparent portion that is formed as the front side of said character and allows viewing of the image displayed on the display unit of said portable terminal;

and the portable terminal having said first cover and said second cover fit on it is accommodated.

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34. The accommodating device described in Claim 33 characterized by the fact that on said second cover, a hole required for the operation of the portable terminal is formed.

35. The accommodating device described in Claim 34 characterized by the fact that said first cover and second cover are made of a transparent material, and the back side of said covers can be coated.

36. The accommodating device described in Claim 35 characterized by the fact that malls for dividing the coating are formed on the back side of said first cover or said second cover.

Detailed explanation of the invention

[0001]

Technical field of the invention

The present invention pertains to a delivery system. Especially, the present invention pertains to a delivery system that has an accommodating device for accommodating the portable terminal interlocked with the contents downloaded to the portable terminal, a server used in it, an accommodating device, or a portable terminal system, and a program.

[0002]

Prior art

In recent years, as represented by the i-mode, the cell phone service not only provides the conversation service of the conventional telephone, but also provides the service of delivery of contents from a contents server, such as a standby reception image, an incoming call melody, game, etc. to the cell phone.

[0003]

On the other hand, it is also possible to provide originality to the cellular phone itself based on the user's interest by decorating the cellular phone or accommodating the cellular phone in a decorated accommodating device (such as a case).

[0004]

Problems to be solved by the invention

However, there is yet no technology that can have the contents downloaded from the contents server and the personal appearance of the cell phone interlocked with each other to increase the user's enjoyment with images or sounds.

[0005]

The purpose of the present invention is to solve the aforementioned problems of the prior art by providing a technology characterized by the fact that it has the personal appearance of the portable terminal and the contents downloaded from the contents server or pre-installed interlocked with each other to form a single set of contents for viewing/listening.

[0006]

Also, the purpose of the present invention is to provide a technology characterized by the fact that it has the personal appearance of the portable terminal and the contents downloaded from the contents server or pre-installed interlocked with each other to form a single set of contents for viewing/listening.

[0007]

Means to solve the problems

In order to realize the aforementioned purpose, the first invention provides a delivery system characterized by the following facts: the delivery system has a portable terminal that has a display means for displaying the image, a means for requesting download of video data, and an image control means that displays the image on said display means, an accommodating device forms as a character and allows viewing of the image displayed on the display means of said portable terminal while said portable terminal is accommodated, and a contents server having a storage means for storing the video data of the image corresponding to a portion of the character formed on said accommodating device, and an image delivery means that responds to the request for download of the video data from the portable terminal and has the video data delivered to said portable terminal; while said portable terminal is accommodated in said accommodating device, the image of the downloaded video data is displayed on the display unit of said portable terminal, so that the character formed on said accommodating device and the image of a portion of the character displayed on the display unit of said portable terminal are integrated to form a single character.

[0008]

In order to realize the aforementioned purpose, the second invention pertains to the delivery system of the first invention characterized by the following facts: said contents server also has a storage means for storing the melody data of the melody pertaining to the character formed on said accommodating device, and a melody data delivery means that responds to the request for download of the melody data from the portable terminal to deliver the melody data to said portable terminal; said portable terminal also has an output means for output of the melody, a means for requesting download of the melody data,

and a melody control means that outputs the melody to said output means on the basis of the downloaded melody data.

[0009]

In order to realize the aforementioned purpose, the third invention pertains to the delivery system in said first or second invention and characterized by the following facts: said contents server has a storage means for storing the video data of plural images corresponding to a portion of the character formed on the accommodating device, and the melody data of the melody corresponding to each of said images, and an image delivery means that responds to each video data from the portable terminal and the request for download of the melody data corresponding to said image data, and delivers the video data and the melody data to said portable terminal; said portable terminal has a means that requests the server for download of plural video data and the melody data corresponding to the plural video data, a storage means that accommodates said downloaded plural video data and the corresponding melody data corresponding to the information indicating the communication state of the portable terminal, and a means that judges the communication state of the portable terminal, and has the video data of the image corresponding to it read from said storage means and displayed on the display means, and at the same time, which has the melody data corresponding to the display image read from said storage means and has the melody output to said output means.

[0010]

In order to realize the aforementioned purpose, the fourth invention pertains to the delivery system in the third invention characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, the call reception state and the e-mail reception state, and the video

data and melody data stored in the server correspond to said call reception standby state, call reception state and e-mail reception state.

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[0011]

In order to realize the aforementioned purpose, the fifth invention provides a portable terminal system characterized by the following facts: the portable terminal system has a portable terminal and an accommodating device for accommodating the portable terminal; said accommodating device is formed as a character and it allows viewing of the image displayed on said portable terminal while said portable terminal is accommodated; said portable terminal has a display means for displaying the image, a storage means that stores the video data of the image corresponding to a portion of the character applied on said accommodating device, and an image control means that displays the image on said display means on the basis of the video data stored in said storage means.

[0012]

In order to realize the aforementioned purpose, the sixth invention pertains to the portable terminal system of the fifth invention characterized by the fact that said portable terminal also has a storage means for storing the melody data of the melody corresponding to the character formed on said accommodating device, an output means for outputting the melody, and a melody control means that outputs the melody to said output means on the basis of the melody data stored in said storage means.

[0013]

In order to realize the aforementioned purpose, the seventh invention pertains to the portable terminal system of the fifth or sixth invention characterized by the fact that said portable terminal has a storage

means that stores the video data of plural images corresponding to a portion of the character formed on the accommodating device and the melody data of the melody corresponding to said images corresponding to the communication state, and a means that judges the communication state and has the video data of the images corresponding to it read from said storage means and displayed on the display means, and at the same time, which has the melody data corresponding to the display image read from said storage means and has the melody output to said output means.

[0014]

In order to realize the aforementioned purpose, the eighth invention pertains to the portable terminal system of the seventh invention characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, call reception state and e-mail reception state, and the video data and melody data stored in said storage means correspond to said call reception standby state, call reception state and e-mail reception state.

[0015]

In order to realize the aforementioned purpose, the eighth invention pertains to the delivery system or portable terminal system of any of said first through eighth inventions characterized by the following facts: said accommodating device has a first cover formed as the back surface of a character, and a second cover that at least has an opening portion or a transparent portion that is formed as the front side of said character and allows viewing of the image displayed on the display unit of said portable terminal; and the portable terminal having said first cover and said second cover fit on it is accommodated.

[0016]

In order to realize the aforementioned purpose, the tenth invention pertains to the delivery system or portable terminal system of the ninth invention characterized by the fact that said second cover has a hole required for the operation of the portable terminal formed on it.

[0017]

In order to realize the aforementioned purpose, the eleventh invention pertains to the delivery system or portable terminal system of the tenth invention characterized by the fact that said first cover and said second cover are formed from a transparent material, and the structure is such that coating can be applied from the back side of said covers.

[0018]

In order to realize the aforementioned purpose, the twelfth invention pertains to the delivery system or portable terminal system of the eleventh invention characterized by the fact that malls for dividing coating are formed on the back side of said first cover or said second cover.

[0019]

In order to realize the aforementioned purpose, the thirteenth invention provides a delivery system characterized by the following facts: the delivery system has a portable terminal having a case formed as a character, a display means for displaying the image, a means requesting download of the video data, and an image control means that displays the image on said display means on the basis of the downloaded video data, and a contents server that has a storage means for storing the video data of the image corresponding to a portion of the character applied on the case of said portable terminal and an

image delivery means that responds to the request of download of the video data from the portable terminal to deliver the video data to said portable terminal; by displaying the image of the downloaded video data on the display unit of said portable terminal, the character formed on the case of said portable terminal and the image of a portion of the character displayed on the display unit of said portable terminal are integrated to form a single character.

[0020]

In order to realize the aforementioned purpose, the fourteenth invention pertains to the delivery system of the thirteenth invention characterized by the following facts: said contents server also has a storage means for storing the melody data of the melody related to the character formed on the case of said portable terminal, and a melody data delivery means that responds to the request for download of the melody data from the portable terminal to deliver the melody data to said portable terminal; and said portable terminal also has an output means that outputs the melody, a means requesting download of the melody data, and a melody control means that outputs the melody to said output means on the basis of the downloaded melody data.

[0021]

In order to realize the aforementioned purpose, the fifteenth invention provides a portable terminal characterized by the fact that the portable terminal has a case formed as a character, a storage means for storing the video data of the image corresponding to a patient of said character, and an image control means for displaying the image on said display means on the basis of the video data stored in said storage means.

[0022]

In order to realize the aforementioned purpose, the sixteenth invention pertains to the portable terminal of the fifteenth invention characterized by the fact that said portable terminal also has a storage means for storing the melody data of the melody related to said character, an output means for outputting the melody, and a melody control means for outputting the melody to said output means on the basis of the melody data stored in said storage means.

[0023]

In order to realize the aforementioned purpose, the seventeenth invention pertains to the portable terminal of the fifteenth or sixteenth invention characterized by the fact that said portable terminal has a storage means that stores the video data of plural images corresponding to a portion of the character and the melody data of the melody corresponding to said images corresponding to the information indicating the communication state, and a means that judges the communication state of the portable terminal, has the video data of the image corresponding to it read from said storage means and displayed on the display means, and at the same time, has the melody data corresponding to the image in display read from the storage means and has the melody output to said output means.

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[0024]

In order to realize the aforementioned purpose, the eighteenth invention pertains to the portable terminal of the seventeenth invention characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, call reception state and e-mail reception state, and the video data and melody data stored in the storage means correspond to said call reception standby state, call reception state and e-mail reception state.

[0025]

In order to realize the aforementioned purpose, the nineteenth invention provides a server characterized by the fact that the server is for delivering images to a portable terminal accommodated in an accommodating device formed as a character, and it has a storage means that stores the video data of the image corresponding to a portion of the character formed on the accommodating device, and an image delivery means that responds to the request for download of the video data from the portable terminal and has the video data delivered to said portable terminal.

[0026]

In order to solve the aforementioned problem, the 20th invention pertains to the server of the nineteenth invention characterized by the fact that said server also has a storage means that stores the melody data of the melody related to the character formed on the accommodating device, and a melody data delivery means that delivers the melody data to said portable terminal when there is a request for download of the melody data from the portable terminal.

[0027]

In order to realize the aforementioned purpose, the twenty-first invention pertains to the server of the nineteenth or twentieth invention characterized by the fact that said server also has a storage means that stores the video data of plural images corresponding to a portion of the character formed on the accommodating device and melody data of the melody corresponding to each said image corresponding to communication state of the portable terminal, and an image delivery means that responds to the

request for download of the video data from the portable terminal and the melody data corresponding to said video data to have the video data and melody data delivered to said portable terminal.

[0028]

In order to realize the aforementioned purpose, the 22nd invention provides a server characterized by the fact that the server for delivery of image to a portable terminal formed as a character and has a storage means that stores the video data of the image corresponding to a portion of the character formed on said portable terminal, and an image delivery means that responds to the request for download of video data from the portable terminal and delivers video data to said portable terminal.

[0029]

In order to realize the aforementioned purpose, the 23rd invention pertains to the server of the 22nd invention characterized by the fact that said server also has a storage means that stores the melody data of melody related to the character formed on said portable terminal, and a melody delivery means that delivers the melody data to said portable terminal when there is a request for download of melody data from the portable terminal.

[0030]

In order to realize the aforementioned purpose, the 24th invention provides a program characterized by the following facts: the program is for a server that delivers images to a portable terminal accommodated in an accommodating device formed as a character; said program makes said server function as a storage means that stores the video data of image corresponding to a portion of the character formed on the accommodating device, and an image delivery means that responds to the

request for download of video data from the portable terminal to deliver the video data to said portable terminal.

[0031]

In order to realize the aforementioned purpose, the 25th invention pertains to the program of the 24th invention characterized by the fact that said program also has said server function as a storage means that stores the melody data of melody related to the character formed on said accommodating device, and a melody data delivery means that delivers melody data to said portable terminal when there is a request for download of melody data from the portable terminal.

[0032]

In order to realize the aforementioned purpose, the 26th invention pertains to the program of the 24th or 25th invention characterized by the fact that said program also has the server function as a storage means that stores the video data of plural images corresponding to a portion of the character formed on the accommodating device corresponding to the communication state of the portable terminal, and an image delivery means that responds to the request for download of the various video data from the portable terminal and the melody data corresponding to them, and delivers the video data and melody data to said portable terminal.

[0033]

In order to realize the aforementioned purpose, the 27th invention provides a program characterized by the fact that the program is for a server for delivery of images to a portable terminal formed as a character, and the program has said server work as a storage means that stores the video data of the

image corresponding to a portion of the character formed on said portable terminal, and an image delivery means that responds to the request for download of the video data from the portable terminal and delivers the video data to said portable terminal.

[0034]

In order to realize the aforementioned purpose, the 28th invention pertains to the program of the 27th invention characterized by the fact that said program also has [the server] function as a storage means that stores the melody data of the melody related to the character formed on said portable terminal, and a melody data delivery means that delivers the melody data to said portable terminal when there is a request for download of the melody data from the portable terminal.

[0035]

In order to realize the aforementioned purpose, the 29th invention pertains to the program of the 27th or 28th invention characterized by the fact that said program also has the server function as a storage means for storing the video data of plural images corresponding to a portion of the character formed on the accommodating device, and the melody data of the melody corresponding to each of said images, and an image delivery means that responds to each video data from the portable terminal and the request for download of the melody data corresponding to said image data, and delivers the video data and the melody data to said portable terminal.

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[0036]

In order to realize the aforementioned purpose, the 30th invention provides a program characterized by the fact that the program is for a portable terminal formed as a character or a portable terminal

accommodated in an accommodating device formed as the character, and said program has said portable terminal function as a storage means that accommodates the video data of the plural images corresponding to a portion of the character corresponding to the communication state of the portable terminal and the melody data of the melody corresponding to each of said images corresponding to the information indicating the communication state, a display means that outputs the melody, and a means that judges the communication state, and has the video data of the image corresponding to it read from said storage means and displayed on the display means, and at the same time, which has the melody data corresponding to the display image read from said storage means and has the melody output to said output means.

[0037]

In order to realize the aforementioned purpose, the thirty-first invention pertains to the program of the thirtieth invention characterized by the fact that the communication state of the portable terminal refers to the call reception standby state, call reception state and e-mail reception state, and the video data and melody data stored in the storage means correspond to said call reception standby state, call reception state and e-mail reception state.

[0038]

In order to realize the aforementioned purpose, the thirty-second invention provides an accommodating device characterized by the following facts: the accommodating device accommodates a portable terminal that has the image as a portion of the prescribed character downloaded from the contents server and displayed, and it at least has an opening portion or a transparent portion that can be visually recognized for the display unit of the portable terminal.

[0039]

In order to realize the aforementioned purpose, the thirty-third invention pertains to the accommodating device of the thirty-second invention characterized by the following facts: said accommodating device has a first cover formed as the back surface of a character, and a second cover that at least has an opening portion or a transparent portion that is formed as the front side of said character and allows viewing of the image displayed on the display unit of said portable terminal; and the portable terminal having said first cover and said second cover fit on it is accommodated.

[0040]

In order to realize the aforementioned purpose, the thirty-fourth invention pertains to the accommodating device of the thirty-third invention characterized by the fact that on said second cover, a hole required for the operation of the portable terminal is formed.

[0041]

In order to realize the aforementioned purpose, the thirty-fifth invention pertains to the accommodating device of the thirty-fourth invention characterized by the fact that said first cover and second cover are made of a transparent material, and the back side of said covers can be coated.

[0042]

In order to realize the aforementioned purpose, the thirty-sixth invention pertains to the accommodating device of the thirty-fifth invention characterized by the fact that malls for dividing coating are formed on the back side of said first cover or said second cover.

[0043]

Embodiments of the invention

In the following, Embodiment 1 of the present invention will be explained. In this embodiment, a cell phone will be taken as a typical example of the portable terminal in the explanation. However, the present invention is not limited to the cell phones. For example, PDA or other portable terminals may also be used.

[0044]

Figure 1 is a schematic diagram illustrating Embodiment 1.

[0045]

In Figure 1, (1) represents a cell phone; (2) represents a contents server that provides the contents; (3) represents a gateway server; (4) represents a base station; (5) represents the stationary communication network on the side of gateway server (3); (6) represents the communication network (internet) that connects gateway server (3) and contents server (2); and (7) represents a mobile communication network.

[0046]

In the following, cell phone (1) and contents server (2) will be explained in detail. Here, given that said gateway server (3), base station (4), stationary communication network (5), communication network (6), and mobile communication network (7) are known technology, they will not be explained in detail here.

[0047]

In the following, an explanation will be given regarding cell phone (1).

[0048]

As shown in Figure 2, cell phone (1) is composed of cell phone main body (1a), and accommodating device (1b) (cell phone cover) for accommodating cell phone main body (1a).

[0049]

First, cell phone main body (1a) will be explained.

[0050]

Figure 3 is a block diagram illustrating cell phone main body (1a).

[0051]

In Figure 3, (11) represents a transceiver for transceiving data.

[0052]

(12) represents a storage part for storing the data.

[0053]

(13) represents a download control part. This download control part (13) requests contents server (2) for download of the video data, and processing is carried out until the processing for storage of the downloaded video data in data storage part (12).

[0054]

(14) represents a display for displaying the image.

[0055]

(15) represents an image control part. This image control part (15) reads the video data stored in data storage part (12), and the image is displayed on display (11) on the base of the read data.

[0056]

(16) represents ten-key or other operation part.

[0057]

In the following, explanation will be given regarding accommodating device (1b) (cell phone cover).

[0058]

Figure 4 is a diagram illustrating accommodating device (1b).

[0059]

Said accommodating device (1b) consists of first cover (20) and second cover (21). In the following, explanation will be given regarding the shape. As to be explained later, on display (11) of cell phone main body (1a), the image of a portion of the character is displayed. Consequently, first cover (20) and second cover (21) are formed as a character so that on the basis of the image of the character displayed on display (11) and the shape of the character formed on first cover (20) and second cover (21), a character can be displayed. For example, suppose the image displayed on display (11) is the image of a portion of the face of a character, accommodating device (1b) is formed as the portion other than the face of the character. /9

[0060]

For first cover (20), the front side of a certain character (such as a dog) is formed. Then, on first cover (20), an antenna hole, a hole needed for transceiving, and opening (22) that allows viewing of display (11) are formed. In this embodiment, the opening is formed for viewing the image displayed on display (11). However, the present invention is not limited to this scheme. For example, the portion corresponding to display (11) may be formed transparent to enable viewing. Said second cover (21) is formed as the back side of said character (such as a dog). In addition, as shown in Figure 5, in recess (23) of first cover (20), protrusion (24) of second cover (21) is fit, the entirety of cell phone main body (1a) is accommodated and covered, and first cover (20) and second cover (21) are fit with each other to form a [complete] character.

[0061]

It is preferred that said first cover (20) and second cover (21) be made of a plastic material with good coloring property and electrical characteristics, such as a transparent ABS resin or the like.

[0062]

In the present embodiment, first cover (20) and second cover (21) are formed from a transparent ABS resin, and they can be any color favored by the user. With regard to coating, in order to protect the coating surface, both first cover (20) and second cover (21) are coated on the back side. Also, on the coating surface side (back side) of first cover (20) and second cover (21), malls (25) are formed, so that the user can easily coat different portions to have an attractive appearance.

[0063]

As explained above, by fitting coated first cover (20) and second cover (21) with cell phone main body (1a) sandwiched between them, it is possible to form cell phone (1) as a colorful character.

[0064]

In the following, an explanation will be made regarding contents server (2).

[0065]

Figure 6 is a block diagram illustrating contents server (2).

[0066]

In Figure 6, (30) represents the transceiver that carries out transceiving of data.

[0067]

Here, (31) represents the image database that stores the video data of the images displayed on cell phone (1). The images of the video data stored in said image data base (31) are those related to the character for use by cell phone (1). As shown in Figure 7, they include the face of the character (smiling face, weeping face), as well as an image of a portion of said character.

[0068]

As shown in Figure 8, in image database (31), a folder is arranged for each of the groups of characters, such as "dogs," "cats," etc. Each folder contains the video data of the various images related to the corresponding character, such as a smiling face, weeping face, etc.

[0069]

(32) represents an image delivery part. This image delivery part (32) responds to the request for download of images from cell phone (1), transmits a menu image and selects the image corresponding to the desired character from the menu image. The video data of the selected image are read from image database (31) and delivered to cell phone (1).

[0070]

The operation of this embodiment will be explained below.

[0071]

Figure 9 is a flow chart illustrating the operation of the present embodiment.

[0072]

First, download control part (13) of cell phone (1) carries out a request to download an image from contents server (2) (step 100).

[0073]

After receiving the request for download, in contents server (2), image delivery part (32) sends the menu image to cell phone (1) that has requested download (step 101).

[0074]

In cell phone (1), after reception of the menu image (step 102), the menu image is displayed on display (14) (step 103). From among the images displayed on the menu image and currently available for download, the user of cell phone (1) selects the image corresponding to the character of accommodating device (1b) (cell phone cover) of his/her cell phone (step 104), and makes a request to download the selected image (step 105).

[0075]

For example, the menu image shown in Figure 10 includes the following images as images that can be downloaded currently: the image of a "smiling face" of the character "dog," the image of a "weeping face" of the character "dog," the image of a "smiling face" of the character "cat," and the image of a "weeping face" of character the "cat." Here, the character of accommodating device (1b) held by the user of cell phone (1) is "dog." Here, the user selects the image of a "smiling face" of the character

"dog." As a result, download control part (13) of cell phone (1) sends the request to contents server (2) for download of the image of "smiling face" of the character "dog" via gateway server (3).

[0076]

When the request for download of an image is received by contents server (2), it receives the request (step 106), and reads the video data of the requested image from image database (31) (step 107). Then, the read video data are sent to cell phone (1) (step 108).

[0077]

For example, when the request from cell phone (1) is to download the image of a "smiling face" of the character "dog," the video data of the "smiling face" of the character "dog" are read from image database (31) and are sent to cell phone (1).

[0078]

In cell phone (1), the downloaded image is received (step 109) and is stored in download control part (13) (step 110). Then, it is read by image control part (15) and is displayed on display (14), and it can be used as the reception standby image or the like (step 111).

/10

[0079]

Figure 11 shows the state in which cell phone main body (1a) is accommodated in accommodating device (1b), and the image of a "smiling face" of the character "dog" that has been downloaded is displayed on display (14).

[0080]

As can be seen from Figure 11, the image of a "smiling face" of the character "dog" is integrated to the shape of accommodating device (1b), so that the character (here, a dog) can be displayed.

[0081]

In said example, the image of a "smiling face" is displayed on display (14). However, the following scheme may be adopted: the "weeping face" image of the character is downloaded and displayed on display (14), so that as shown in Figure 12, it is possible to display the character with a weeping face different from said smiling face.

[0082]

In this way, according to the present invention, the shape formed on accommodating device (1b) and the downloaded image are integrated to display a single character. Consequently, by changing the image displayed on the display of the main body of the cell phone, it is possible to display the character in different states.

[0083]

In the aforementioned application example, accommodating device (1b) is made of a transparent material so that a coating can be applied at will as favored by the user. However, one may also adopt a scheme in which coloring is applied beforehand by means of multi-color formation. In addition, the material for accommodating device (1b) is not limited to the ABS resin. One may also adopt PVC or another material.

[0084]

Also, instead of accommodating device (1b), one may form the character on the main body of the cell phone itself.

[0085]

In addition, the image for downloading is not limited to the face of the character. It may also be the image of the character's hands or feet. Also, the image is not limited to still pictures. It may also be moving picture that can vary from a smiling face to a weeping face.

[0086]

Embodiment 2 will be explained below.

[0087]

According to Embodiment 2, in addition to the features of said Embodiment 1, there is the following feature: the incoming call melody (incoming call sound) related to the character of accommodating device (1b) is stored in contents server (2). By downloading incoming call melody (1) [sic] to cell phone (1), the incoming call melody can be used to even better indicate the characteristic feature of a character.

[0088]

In order to realize the aforementioned function, as shown in Figure 13, incoming call melody database (50) and incoming call melody delivery part (51) for delivering the incoming call melody are arranged in contents server (2).

[0089]

Also, as shown in Figure 14, download control part (13) of cell phone main body (1a) has the additional function that the data of the incoming call melody from contents server (2) are downloaded and stored in data storage part (12). In addition, cell phone main body (1a) has the following parts arranged on it: speaker (60) that outputs the incoming call melody, and incoming call melody control part (51) that reads the data of the incoming call melody stored in data storage part (12) and outputs the incoming call melody to speaker (50) [sic].

[0090]

The operation of said constitution will be explained below.

[0091]

Figure 15 is a flow chart illustrating the operation of Embodiment 2.

[0092]

First, download control part (13) of cell phone (1) sends a request to contents server (2) for download of the incoming call melody via gateway server (3) (step 200).

[0093]

After receiving the download request for contents server (2), incoming call melody control part (51) sends the menu image to cell phone (1) that has requested download (step 201).

[0094]

Said cell phone (1) receives the menu image (step 202), and has the menu image displayed on display (14) (step 203). The user of cell phone (1) selects the incoming call melody corresponding to the character of accommodating device (1b) (cell phone cover) held by the user from among the incoming call melodies that are displayed on the menu image and can be downloaded currently (step 204), and requests download of the selected incoming call melody (step 205).

[0095]

For example, on the menu image shown in Figure 16, the incoming call melodies that can be downloaded currently include the incoming call melody of "bark" of the character "dog" and the incoming call melody of "meow" of the character "cat." For example, when the character of accommodating device (1b) held by the user of cell phone (1) is "dog," the user selects the incoming call melody of "bark" of character "dog." As a result, download control part (13) of cell phone (1) sends contents server (2) the request for download of the data of the incoming call melody "bark" of character "dog" via gateway server (3).

[0096]

After receiving the request for download of the incoming call melody, contents server (2) receives the request (step 206), and the data of the incoming call melody requested is read from incoming call melody database (50) (step 107). Then, the read data are sent to cell phone (1) (step 208).

[0097]

For example, when the request from cell phone (1) is a request to download "bark" of the character "dog," the data of "bark" of character "dog" are read from incoming call melody database (50) and are sent to cell phone (1).

[0098]

In cell phone (1), the data of the downloaded incoming call melody are received (step 209), and the data of the incoming call melody are stored in download control part (13) (step 210).

[0099]

Then, incoming call melody control part (51) judges whether there is an incoming call from another cell phone (step 211). If the judgment result is YES (step 212), incoming call melody control part (51) has the data of the incoming call melody read from download control part (13). Then, on the basis of the data of the read incoming call melody, the incoming call melody is output from speaker (50) (step 213). /11

[0100]

In said Embodiment 2, when the face of the character or the image of a portion of it is displayed as the reception standby image, as the incoming call arrives, the incoming call melody corresponding to the character is output. Consequently, in addition to the visual effect by means of the character-formed accommodating device (1b) and the displayed image, it is possible to create the sound effect of the incoming call melody. As a result, it is possible to display the character even more realistically.

[0101]

For example, as explained in Embodiment 1, the main body of the cell phone is accommodated in an accommodating device formed in a dog shape, and the smiling face of the dog is displayed on the reception standby image. When an incoming call comes, as the incoming call melody, a "bark, bark" sound is output, so that the character of a dog can be better represented.

[0102]

Embodiment 3 will be explained below.

[0103]

In Embodiment 3, plural images and the data of the melody corresponding to them are prepared in contents server (2), and they are downloaded in cell phone (1). Then, in cell phone (1), the downloaded images and melodies are stored corresponding to different communication states, such as the reception standby state of call, call incoming state or mail incoming state, etc., these images and melodies are switched for display and output corresponding to the communication state. Specific embodiment will be explained below. Here, the portions the same as those in the aforementioned embodiments will not be explained again.

[0104]

Figure 17 is a block diagram illustrating contents server (2).

[0105]

In Figure 17, (61) represents the image/melody database that stores the images and melodies for display and output to cell phone (1). The data stored in said image/melody database (61) are the images/melodies for use in cell phone (1), and the communication state of cell phone (1), here the image/melody data for use in reception standby of all incoming calls and incoming e-mail are stored. Figure 18 is a diagram illustrating an example of the image/melody data stored in image/melody database (61). According to Figure 18, the stored contents include a group of character images "smiling face" and melodies "bark, bark," a group of character images "weeping face" and melodies "wah, wah," and a group of character images "angry face" and melodies "woo, woo."

[0106]

(62) represents the image/melody delivery part. This image/melody delivery part (62) responds to the request from cell phone (1) for download of the image/melody, and sends said data of plural images/melodies to cell phone (1).

[0107]

Cell phone main body (1a) will be explained below.

[0108]

Figure 19 is a block diagram illustrating cell phone main body (1a).

[0109]

In Figure 19, (70) represents the communication state judgment part. This communication state judgment part (70) judges the current communication state of the cell phone, that is, the call reception standby state, the call reception state and the e-mail reception state.

[0110]

(71) represents the data storage part. This data storage part (71) has the downloaded data stored in data storage part (12) corresponding to the communication state. Here, the storage method is as follows: the user can select the group of character images "smiling face" and melodies "bark, bark" for the call reception standby state, the group of character images "weeping face" and melodies "wah, wah" for the call incoming state, and the group of character images "angry face" and melodies "woo, woo" for the e-mail incoming state. The selected image/melody corresponding to the communication state are stored in data storage part (12).

[0111]

(72) represents the display/output control part. This display/output control part (72) receives the communication state from communication state judgment part (70) and, corresponding to this state, reads the image/melody data from data storage part (12), and while the image is displayed on display (14), the melody is output from speaker (60). However, in the reception standby state, only the image is displayed.

[0112]

In the following, the operation of the aforementioned constitution will be explained. Here, the operation of downloading of the image/melody from contents server (2) is the same as the aforementioned embodiments, so that it will not be explained in detail again.

[0113]

Figure 20 is a flow chart illustrating the operation at cell phone (1).

[0114]

First, cell phone (1) receives the image/melody from contents server (2) (step 300), and has the received image/melody data correspond to the communication state by means of data storage part (71) (step 301). Then, the communication state information and the image/melody data corresponding to each other are stored in data storage part (12) (step 302).

[0115]

Here, the group of character images "smiling face" and melodies "bark, bark" corresponding to the call reception standby state, the group of character images "weeping face" and melodies "wah, wah" corresponding to the call incoming state, and the group of character images "angry face" and melodies "woo, woo" corresponding to the e-mail incoming state are stored in data storage part (12).

[0116]

Then, communication state judgment part (70) judges the current communication state of cell phone (1), and the communication state is output to display/output control part (72) (step 303).

[0117]

The image/melody data corresponding to the communication state are read from data storage part (12) under control of display/output control part (72) (step 304). Then, they are output to display (14) and speaker (60) so that the image is displayed and the melody is output (step 305).

[0118]

/12

More specifically, in the call reception standby state, as shown in Figure 21, the image of "weeping face" is displayed on display (14). Then, when the call arrives, as shown in Figure 22, the image on display (14) is changed to "smiling face," and at the same time, melody "bark, bark" is output from speaker (60). When an e-mail arrives, as shown in Figure 23, an "angry face" image is displayed on display (14), while the melody "woo, woo" is output from speaker (60).

[0119]

In this way, the image/melody vary corresponding to the communication state, so that together with the character of the accommodating device, the user can enjoy the variation in both the image and the sound.

[0120]

The operation, which is the same as those in said Embodiment 1, Embodiment 2 and Embodiment 3, may be carried out by means of the program using a computer or other information processor, and contents server (2) is driven to function.

[0121]

In said Embodiment 1, Embodiment 2 and Embodiment 3, the image or melody is obtained by downloading from the contents server. However, they may also be stored in the main body of the cell phone beforehand (such as pre-installing), and the same effect can be displayed on the side of the cell phone.

[0122]

Effect of the invention

According to the present invention, the accommodating device is formed as a character for accommodating the portable terminal, and while the portable terminal is accommodated in the accommodating device, the image related to the character and downloaded from the server is displayed on the portable terminal. As a result, the shape of the character applied on the accommodating device and the downloaded image are integrated with each other to display a single character.

[0123]

Also, when plural images for display are prepared, the image for display on the display unit of the main body of the cell phone can be changed to display the character in different states.

[0124]

Also, an incoming call melody may also be downloaded from the server so that the incoming call melody is output together with display of the image related to the character. Consequently, in addition to the visual effect by the shape of the character formed on the accommodating device and the displayed

image, there is an auditory effect by the incoming call melody, so that the character can be displayed with even better reality.

[0125]

In addition, by preparing plural images and melodies and changing the image/melody corresponding to the communication state of the portable terminal, it is possible to enjoy variation in the image and sound together with the character formed on the accommodating device or the portable terminal.

Brief description of the figures

Figure 1 is a schematic diagram illustrating an embodiment of the present invention.

Figure 2 is a diagram illustrating cell phone (1).

Figure 3 is a block diagram illustrating cell phone main body (1a).

Figure 4 is a diagram illustrating accommodating device (1b).

Figure 5 is a diagram illustrating accommodating device (1b).

Figure 6 is a block diagram illustrating contents server (2).

Figure 7 is a diagram illustrating an example of the stored images.

Figure 8 is a diagram illustrating image database (31).

Figure 9 is a flow chart illustrating the operation in this embodiment.

Figure 10 is a diagram illustrating an example of display of the menu image.

Figure 11 is a diagram illustrating the image of a "smiling face" of the character "dog" accommodated in accommodating device (1b) and downloaded to cell phone main body (1a) for display on display (14).

Figure 12 is a diagram illustrating the image of a "weeping face" of the character "dog" accommodated in accommodating device (1b) and downloaded to cell phone main body (1a) for display on display (14).

Figure 13 is a block diagram illustrating contents server (2) in Embodiment 2.

Figure 14 is a block diagram illustrating cell phone main body (1a) in Embodiment 2.

Figure 15 is a flow chart illustrating the operation of Embodiment 2.

Figure 16 is a diagram illustrating the menu image in Embodiment 2.

Figure 17 is a block diagram illustrating contents server (2) in Embodiment 3.

Figure 18 is a diagram illustrating the image/melody data.

Figure 19 is a block diagram illustrating cell phone main body (1a) in Embodiment 3.

Figure 20 is a flow chart illustrating the operation in cell phone (1) in Embodiment 3.

Figure 21 is a diagram illustrating the display/output state of cell phone (1) in Embodiment 3.

Figure 22 is a diagram illustrating the display/output state of cell phone (1) in Embodiment 3.

Figure 23 is a diagram illustrating the display/output state of cell phone (1) in Embodiment 3.

Explanation of symbols

- 1 Cell phone
- 1a Cell phone main body
- 1b Accommodating device
- 2 Contents server
- 3 Gateway server
- 4 Base station
- 5 Stationary communication network

6 Communication network (internet)

/13

7 Mobile communication network

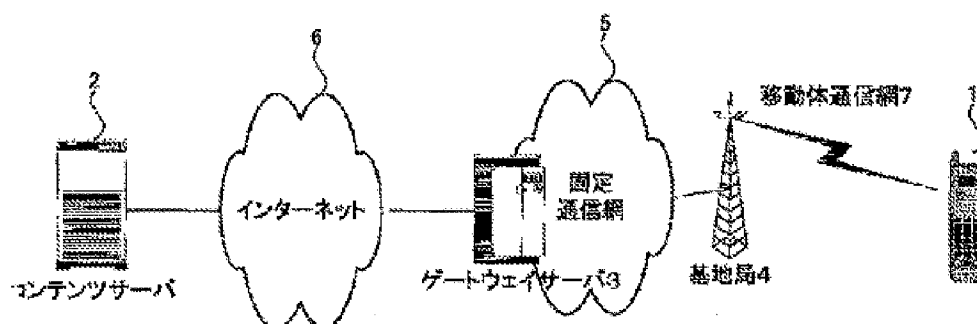


Figure 1

- Key:
- 2 Contents server
 - 3 Gateway server
 - 4 Base station
 - 5 Stationary communication network
 - 6 Internet
 - 7 Mobile communication network

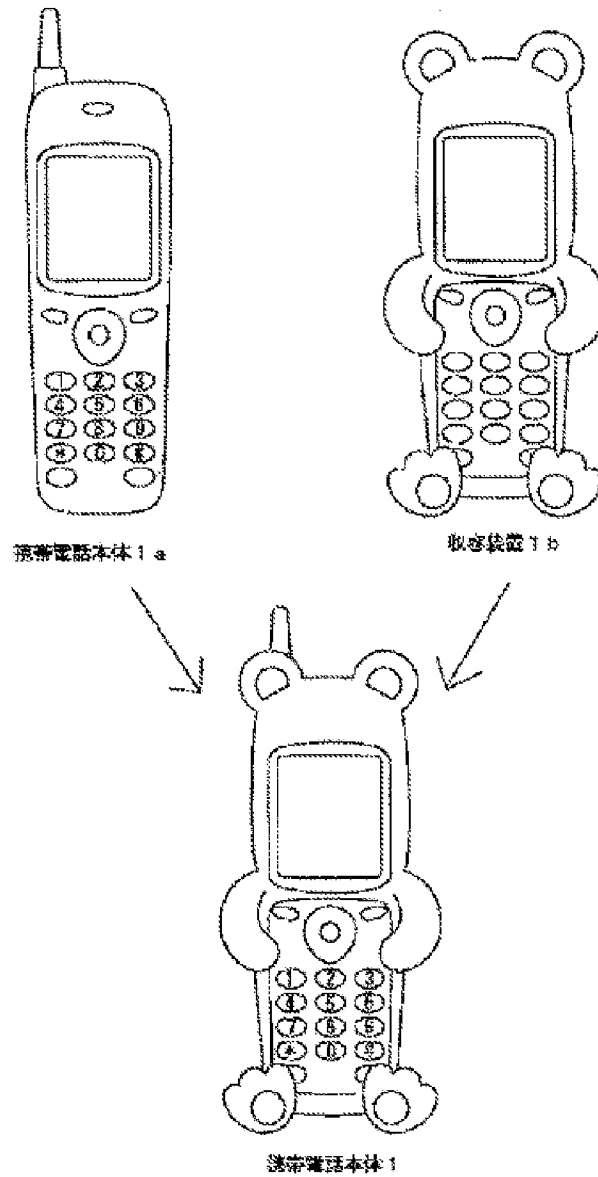


Figure 2

- Key: 1a Cell phone main body
- 1b Accommodating device
- 1 Cell phone main body

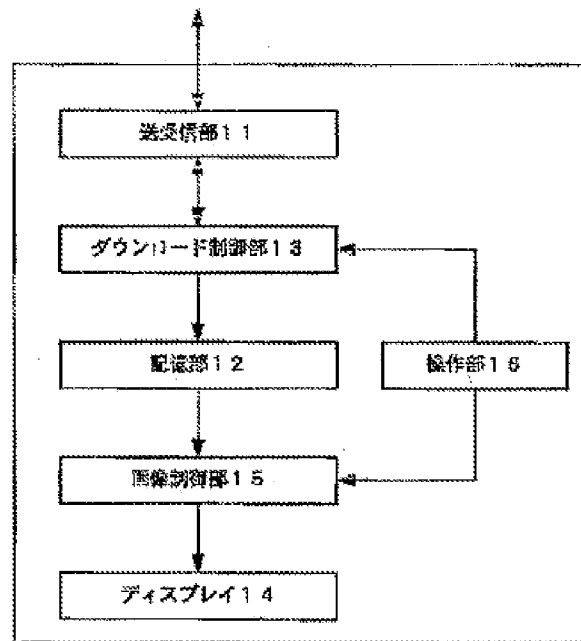


Figure 3

- Key:
- 11 Transceiver
 - 12 Storage part
 - 13 Download control part
 - 14 Display
 - 15 Image control part
 - 16 Operation part

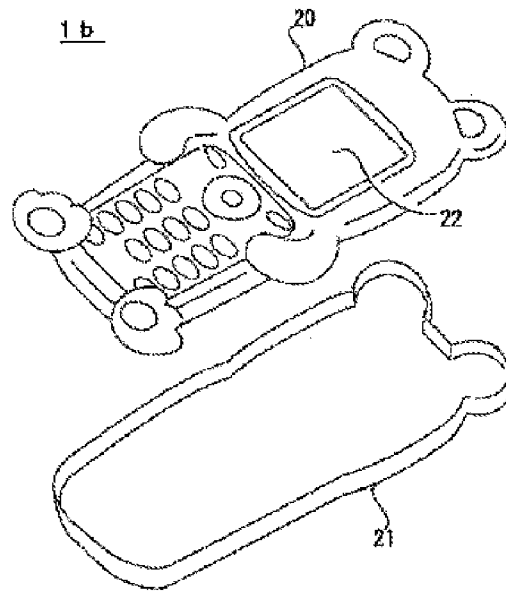


Figure 4

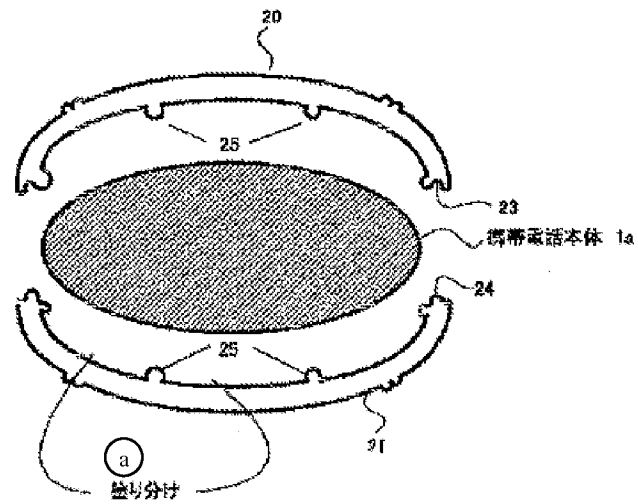


Figure 5

Key: 1a Cell phone main body
a Different coatings

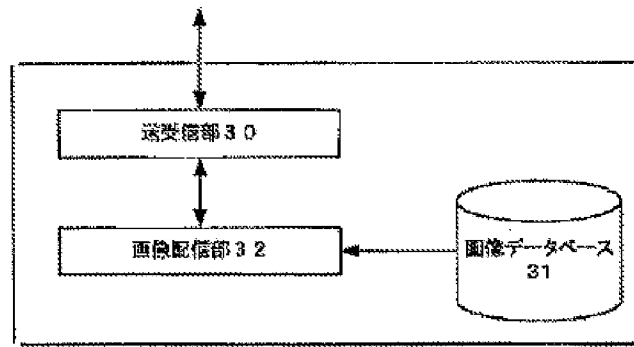


Figure 6

Key: 30 Transceiver
 31 Image database
 32 Image delivery part

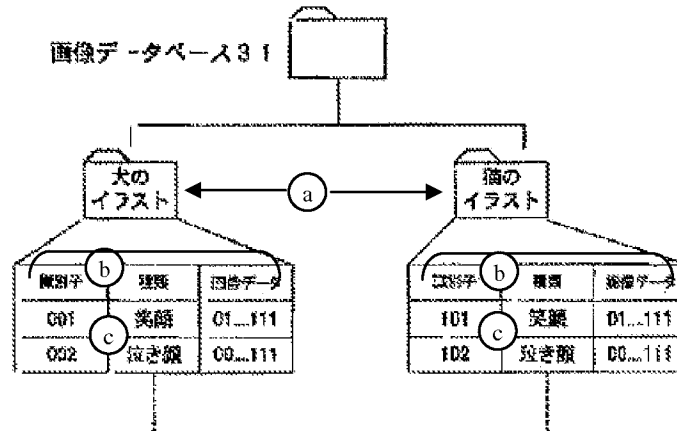


Figure 7

Key: a Dog image
 Cat image
 b Identifier

- Type
- Video data
- c Smiling face
- Weeping face
- 31 Image database

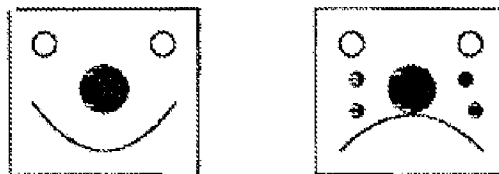


Figure 8

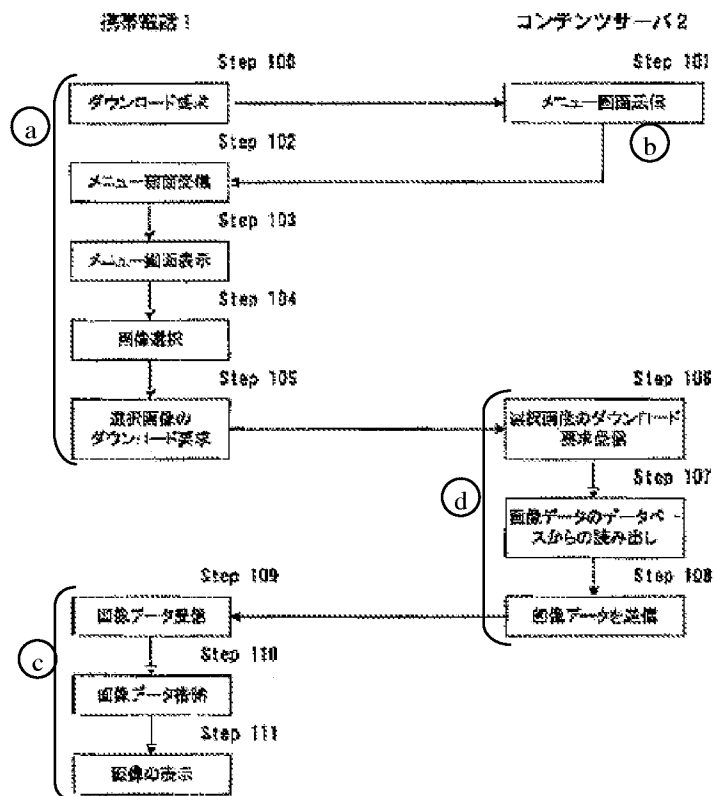


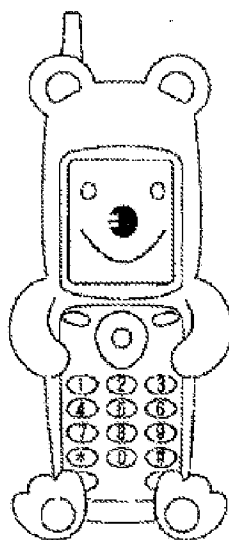
Figure 9

- Key: a Download request
- Reception of menu image
- Display of menu image
- Selection of image
- Request for download of selected image
- b Sending of menu image
- c Reception of video data
- Storage of video data
- Display of image
- d Reception of request for download of selected image
- Read of video data from database
- Sending of video data
- 1 Cell phone
- 2 Contents server

The screenshot shows a mobile application interface with a dashed border. At the top, it says (a) メニュー画面 (Menu Screen). Below that, (b) 現在ダウンロード可能な画像の一覧です。ダウンロードする画像のボックスにチェックをしてください。 (This is a list of images currently available for download. Please check the boxes for the images you want to download.) A horizontal line separates the header from the content. Below the line, there are two columns. The left column is headed by (c) キャラクター"犬" (Character "Dog") and the right column by キャラクター"猫" (Character "Cat"). Each column contains two checkboxes: 笑顔 (Smiling face) and 泣き顔 (Crying face). Below each set of checkboxes is a label (d). The interface is designed for a user to select specific character expressions for download.

Figure 10

- Key: a Menu image
- b This is a list of the images that can be downloaded currently.
Please check the box of the image to be downloaded.
- c Character "dog"
Character "cat"
- d Smiling face
Weeping face

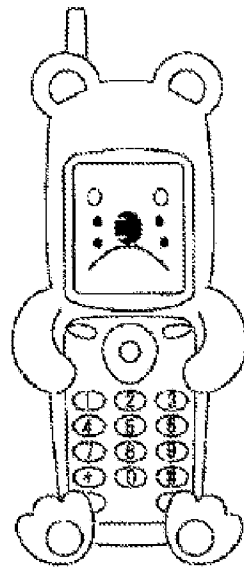


携帯電話本体 1

(a) 笑い顔

Figure 11

- Key: a Smiling face
- 1 Cell phone main body



携帯電話本体 1

(a) 泣き顔

Figure 12

Key: 1 Cell phone main body

a Weeping face

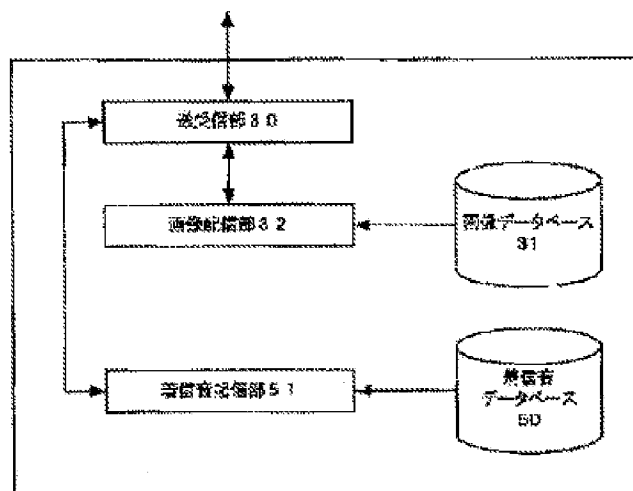


Figure 13

- Key: 30 Transceiver
- 31 Image database
- 32 Image delivery part
- 50 Incoming call melody database
- 51 Incoming call melody delivery part

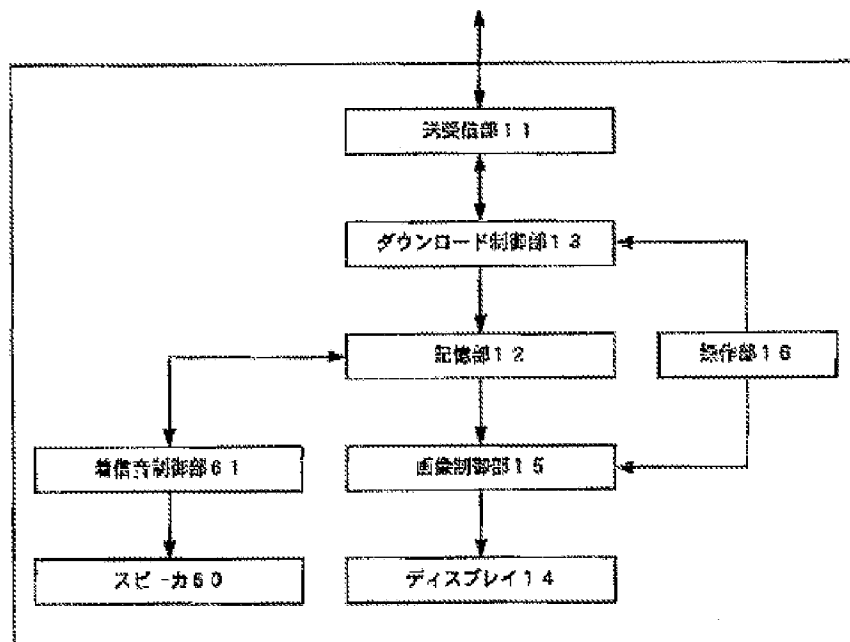


Figure 14

- Key: 11 Transceiver
- 12 Storage part
- 13 Download control part
- 14 Display
- 15 Image control part

- 16 Operation part
- 60 Speaker
- 61 Incoming call melody control part

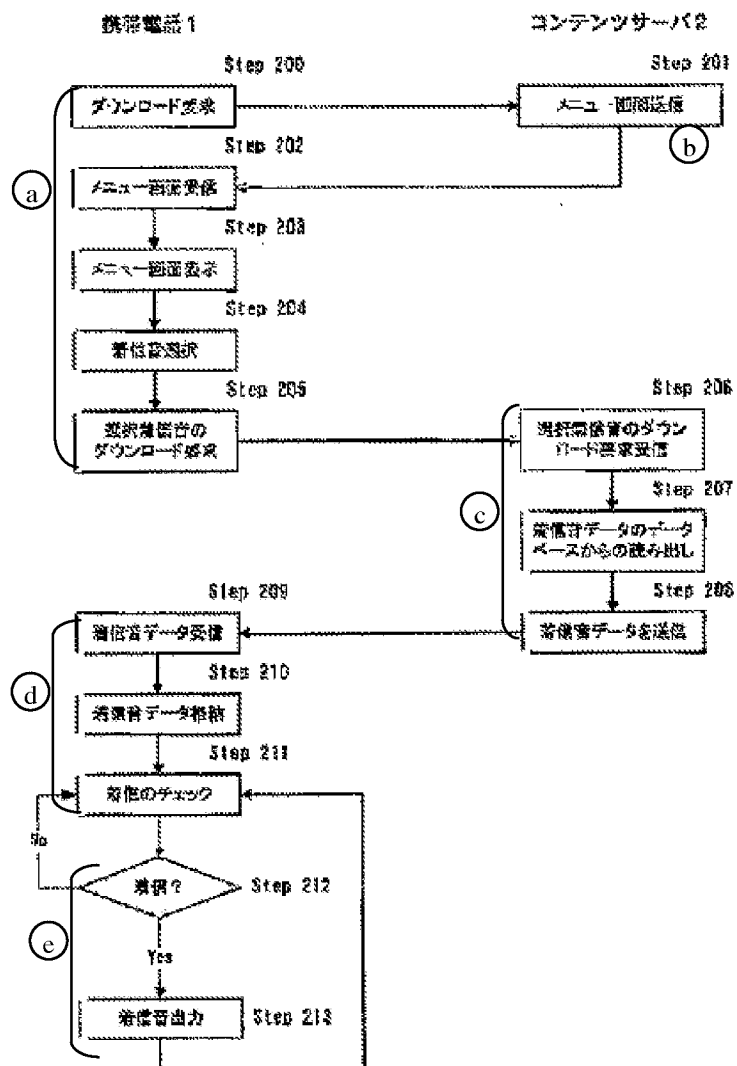


Figure 15

- Key: 1 Cell phone
- 2 Contents server

- a Download request
- Reception of menu image
- Display of menu image
- Selection of incoming call melody
- Request for download of selected incoming call melody
- b Sending of menu image
- c Reception of request for download of selected incoming call melody
- Read of incoming call melody data from database
- Sending of incoming call melody data
- d Reception of incoming call melody data
- Storage of incoming call melody data
- Checking of incoming call
- e Incoming call?
- Output of incoming call melody

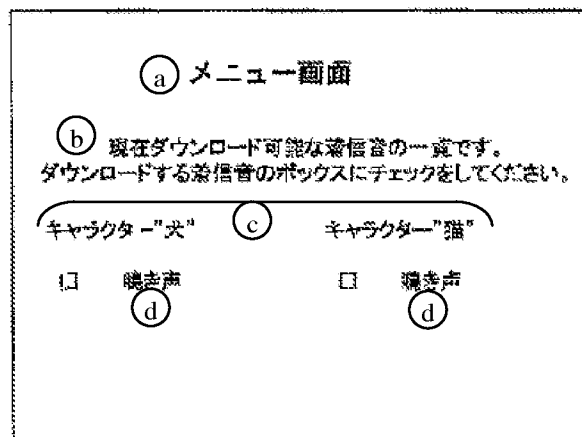


Figure 16

- Key: a Menu image
- b This is a list of the incoming call melodies that can be downloaded currently.
Please check the box of the incoming call melody to be downloaded.
- c Character "dog"
Character "cat"
- d Bark sound
Meow sound

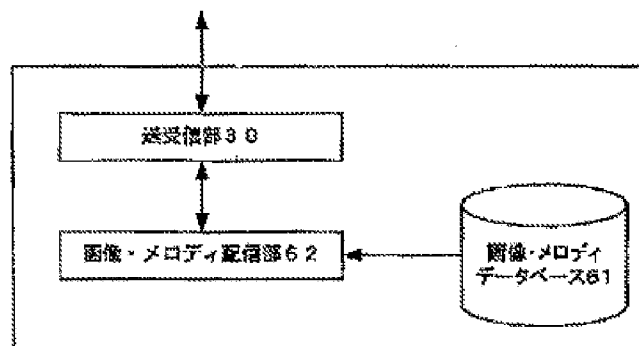


Figure 17

- Key: 30 Transceiver
- 61 Image/melody database
- 62 Image/melody delivery part

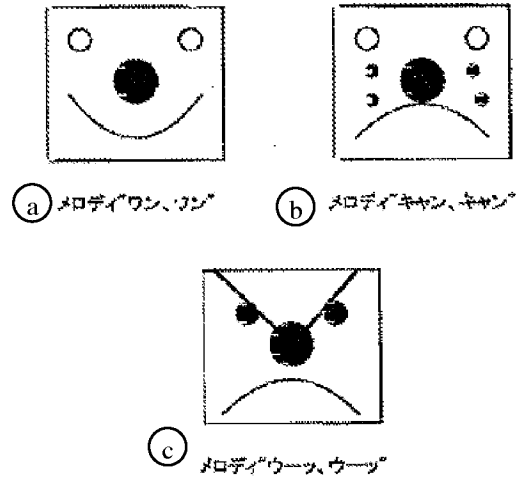


Figure 18

Key: a Melody "bark, bark"

b Melody "wah, wah"

c Melody "woo, woo"

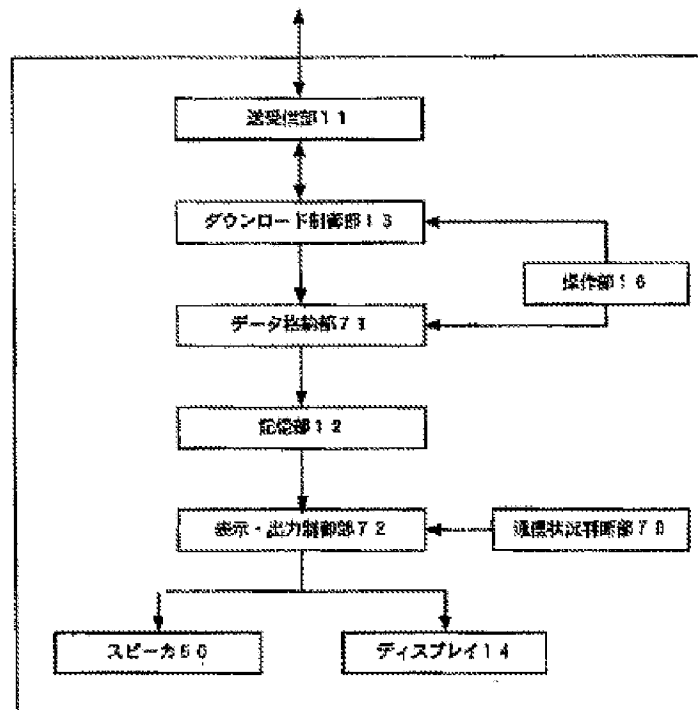


Figure 19

- Key: 11 Transceiver
 12 Storage part
 13 Download control part
 14 Display
 16 Operation part
 60 Speaker
 70 Communication state judgment part
 71 Data storage part
 72 Display/output control part

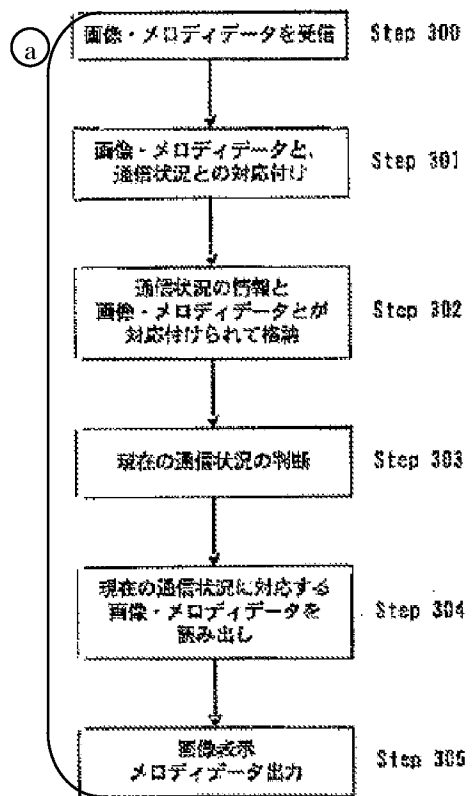


Figure 20

Key: a Reception of image/melody data

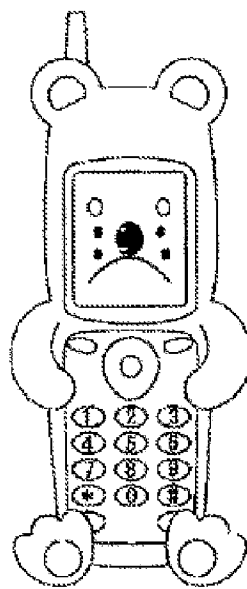
Establishing of correspondence between image/melody data and communication state

Storage of the information of the communication state and the image/melody data corresponding to each other

Judgment of the current communication state

Read of image/melody data corresponding to the current communication state

Display of image and output of melody data



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Figure 21

Key: a Weeping face

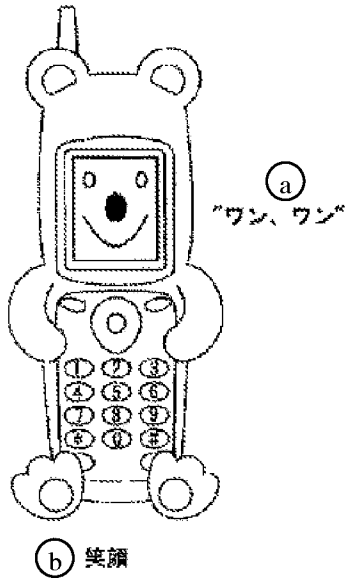


Figure 22

Key: a "Bark, Bark"
b Smiling face

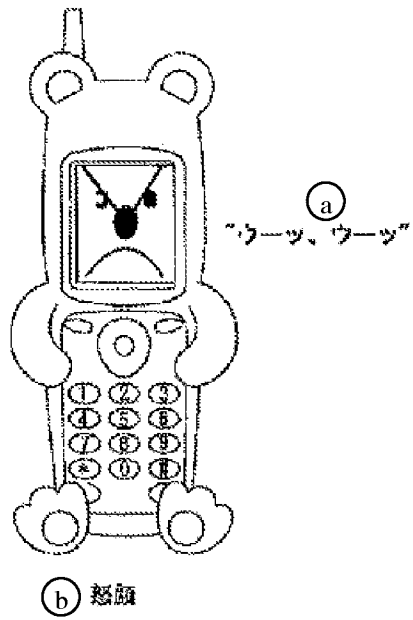


Figure 23

Key: a "Woo, woo"

b Angry face